

In the Claims:

1. (Currently Amended) A method of reducing a rate for refreshing a portion of a dynamic random access memory (DRAM), comprising:

providing a first portion of said DRAM comprising a plurality of volatile memory cells permitting refresh at a first rate and a second portion of said DRAM comprising a differing plurality of volatile memory cells permitting refresh at a second rate lower than said first rate;

determining, by performing testing, the first and second refresh rates that are permitted for the first and second portions;

storing information for distinguishing between said first portion and said second portion and storing information indicating the first and second refresh rates associated with the first and second portions within said DRAM; and

accessing said stored information to determine when and to refresh said first portion at said first rate and to determine when and to refresh said second portion at said second rate.
2. (Original) A method as claimed in claim 1 wherein said first portion and said second portion each include one or more segments of said DRAM, and said information allows said first portion and said second portion to be distinguished on the basis of said segments.
3. (Original) A method as claimed in claim 1 wherein said first portion includes subportions, at least some of said subportions being physically discontinuous.
4. (Original) A method as claimed in claim 3 wherein said subportions are wordline spaces of said DRAM and said information allows said first portion and said second portion to be distinguished on the basis of said wordline spaces.

5. (Original) A method as claimed in claim 1 wherein said first portion is refreshed at said first rate and said second portion is refreshed at said second rate while both said first portion and said second portion operate in a mode selected from the group consisting of active mode and sleep mode.

6. (Cancelled)

7. (Currently Amended) A method as claimed in claim ~~[[6]]~~ 1 wherein said information is further stored in a non-volatile memory and accessed from said non-volatile memory for storage in said DRAM.

8. (Currently Amended) A method as claimed in claim ~~[[6]]~~ 7 wherein said information is stored on one or more fuses on an integrated circuit including said DRAM.

9. (Original) A method as claimed in claim 1 wherein said information further allows a plurality of portions numbering one to n of said DRAM including said first portion and said second portion to be distinguished for refreshing said plurality of portions of said DRAM at a plurality of respective rates numbering one to n, and said stored information is accessed to refresh said plurality of portions at said respective rates including to refresh said first portion at said first rate, to refresh said second portion at said second rate, and to refresh said nth portion at said nth rate.

10. (Currently Amended) A method as claimed in claim ~~[[6]]~~ 1 wherein said information is stored in a space accessible through one or more wordlines of said DRAM.

11. (Original) A method as claimed in claim 1 wherein said information is generated by post-fabrication stress testing of said DRAM.

12. (Currently Amended) An integrated circuit including a dynamic random access memory (DRAM), comprising:

a first portion comprising a plurality of volatile memory cells requiring refresh at a first rate and a second portion comprising a different plurality of volatile memory cells permitting refresh at a second rate lower than said first rate; [[and]]

electronic means operable to store information for distinguishing between said first portion and said second portion; [[and]]

storage within said DRAM for storing information indicating the first rate associated with said first portion and the second rate associated with said second portion; and

a controller operable to access said stored information from said storage and said electronic means to determine when and to refresh said first portion at said first rate and to determine when and to refresh said second portion at said second rate.

13. (Original) An integrate circuit as claimed in claim 12 wherein said first portion and said second portion each include one or more segments of said DRAM, and said information allows said first portion and said second portion to be distinguished on the basis of said segments.

14. (Original) An integrated circuit as claimed in claim 12 wherein said first portion includes subportions, at least some of said subportions being physically discontinuous.

15. (Original) An integrated circuit as claimed in claim 14 wherein said subportions are wordline spaces of said DRAM such that said information allows said first portion and said second portion to be distinguished on the basis of said wordline spaces.

16. (Original) An integrated circuit as claimed in claim 12 wherein said controller is operable to refresh said first portion at said first rate and to refresh said second portion at said second rate while both said first portion and said second portion operate in a mode selected from the group consisting of active mode and sleep mode.

17. (Cancelled)

18. (Currently Amended) An integrated circuit as claimed in claim ~~[[17]]~~ 12 wherein said controller is further operable to access first information from a non-volatile memory and said electronic means is further operable to store said information from said first information.

19. (Original) An integrated circuit as claimed in claim 18 wherein said electronic means includes one or more fuses.

20. (Original) An integrated circuit as claimed in claim 12 wherein said information further allows a plurality of portions numbering one to n of said DRAM including said first portion and said second portion to be distinguished for refreshing said plurality of portions of said DRAM at a plurality of respective rates numbering one to n, and said controller is operable to refresh said plurality of portions at said respective rates including to refresh said first portion at said first rate, to refresh said second portion at said second rate, and to refresh said nth portion at said nth rate.

21. (Original) An integrated circuit as claimed in claim 20 wherein said electronic means includes a space accessible through one or more wordlines of said DRAM.